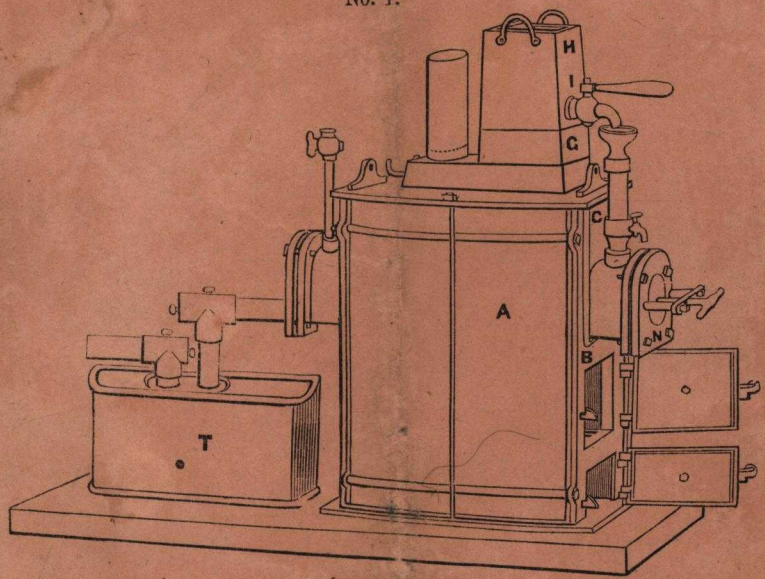
STRATTON & BROTHER'S

PATENT PORTABLE GAS APPARATUS,

FOR

LIGHTING TOWNS, FACTORIES, COLLEGES, CHURCHES, HOTELS,
THEATRES, AND COUNTRY RESIDENCES,
LIGHT-HOUSES, ETC.

No. 1.



Office, No. 719 Walnut Street,

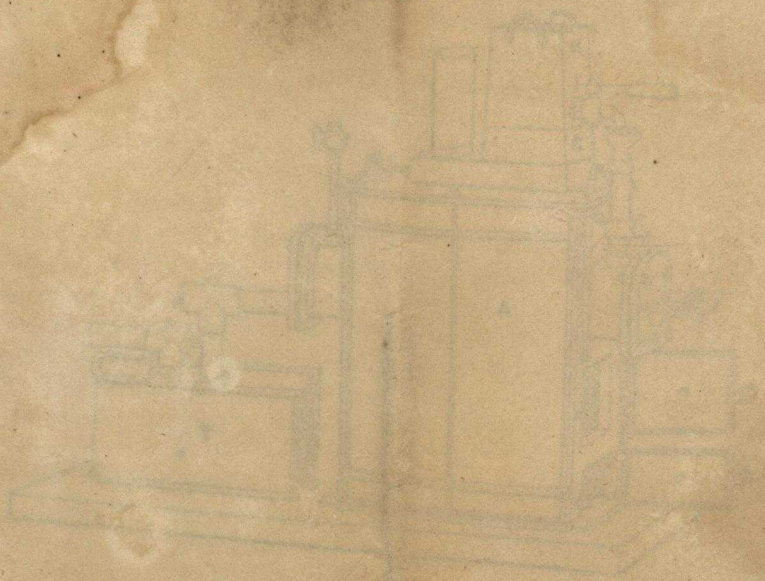
PHILADELPHIA, PA.

PHILADELPHIA:
KING & BAIRD, PRINTERS, No. 607 SANSOM STREET.
1860.

STRETTON & BROTHER'S

PATENT PORTABLE GAS APPARATUS,

LIGHTING TOWNS, FACTORIES, THEATRES, CHURCHES, HOTELS,
PRIVATE RESIDENCES,
&c. &c. &c.



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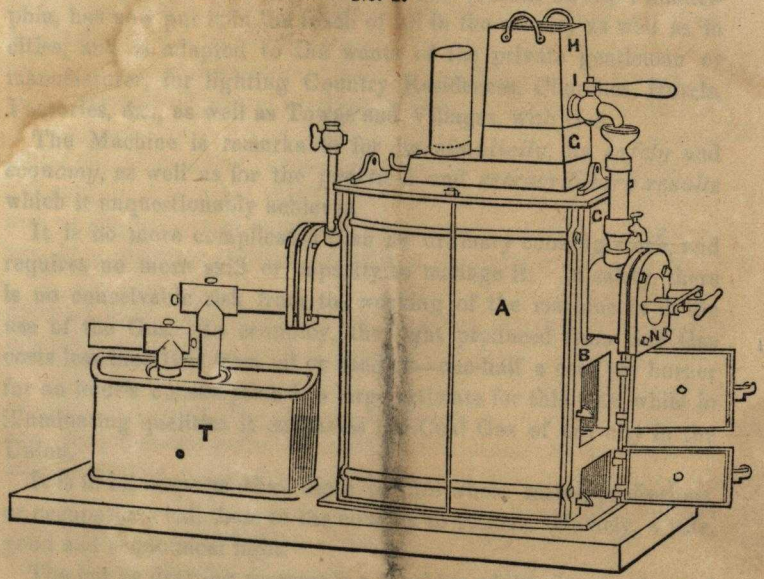

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1870.

STRATTON & BROTHER'S

PATENT PORTABLE GAS APPARATUS.

THE introduction of the Patent Portable Gas Apparatus, manufactured by Stratton & Brother, No. 719 Walnut street, Philadelphia, has now put it in the reach of all in the country as well as in cities, and is adapted to the wants of the private gentleman or manufacturer, for lighting Country Residences, Churches, Hotels, Factories, &c., as well as Towns and Villages, with Gas.

The Machine is remarkable for its *simplicity*, its *safety* and *economy*, as well as for the *practical* and *extraordinary results* which it unquestionably achieves.

It is no more complicated than an ordinary cooking stove, and requires no more skill or capacity to manage it. In safety, there is no conceivable risk from the working of the machine or in the use of the Gas. In economy, the light produced from this Gas costs less than that from oil or candles—one-half a cent per burner for an hour's consumption is a large estimate for this Gas, while in illuminating qualities it surpasses the Coal Gas of any city in the Union.

It is in all respects what those require whose tastes, professions, or occupations call them to the country to reside. Namely, a safe, good and economical light.

The cut or drawing represents a Machine of the size mostly used in private dwellings, and consists of a stove, in which is set the Retort or generating apparatus, with the condensing box attached. **A** represents the Stove; **B** the Ends; **C** Gates in the End; **G** is an additional section placed under the Resin Boiler; **H** where the Resin is melted; **I** is a Stop-cock; **N** moveable heads screwed to the Retort by set screws; **T** the Cooler and Condenser, with outlet pipe for the tar.

The Retort is a cast-iron cylinder, having heads to bolt on, the stove containing the Retort is of cast-iron, lined with fire-brick, and arranged upon the most approved plan to economize the heat. The Syphon-box or condenser, is a cast-iron vessel, with a moveable

lid, bolted and screwed upon it. This is divided into compartments and filled with water, with a syphon attached so as to keep the water at all times to its proper level.

The Water Tank, in which the Gasometer floats, is made of wood or stone, and placed below the surface of the ground. The Gas-holder is of sheet-iron, suspended upon fixed pulleys, and forms the receiver for the Gas when generated and ready for consumption.

The working of the Machine and management of it, requires no more than ordinary skill, and may be safely entrusted to a domestic. A fire being made in the Stove, as in an ordinary furnace, the Retort is heated to a bright cherry-red heat. The Stop-cock is then opened to allow the Resin to pass from the Resin-boiler into the Retort, where it is instantaneously converted into Gas, and after passing into the Condenser, is received in the Gas-holder ready for use.

The material used is Resin; there cannot be found in the whole range of chemistry a compound more richly laden with illuminating qualities, or yielding gases more innocuous in respiration, or less injurious to furniture, for it contains neither carbonic acid nor sulphureted hydrogen.

Each barrel of the raw material will make from 1800 to 2000 cubic feet of Gas, which will be equal in light to double the quantity of Coal Gas.

These works are made of any required capacity, and adapted in form and size to the necessities of the space they are to occupy, and the requirements of the burners they are to supply, and increase or lessen the cost according to the size.

Persons making application should state the number of burners, &c., required, with the quantity of Gas to be consumed each night, and the number of nights required; the quantity of Gas can be readily estimated, basing the calculation upon a consumption of two (2) cubic feet per hour for each burner while burning. In applications for Factories, Founderies, Colleges, Churches, &c., it would be better to give the number of burners and the time they are in use.

The foregoing description of the Works for private dwellings will suffice for the larger sizes required for Factories, Colleges, &c. The principle is the same, and simplicity and efficiency is retained in all its parts; larger generating surface, and an economical application of the heat is secured by arranging two Retorts over

one fire, each communicating with the same Resin-boiler and Gasometer.

To the Manufacturer it is desirable as a mere matter of economy without reference to its protection from risk of fire necessarily incurred by the use of Oils or Candles. And to Schools, Colleges, and Hotels, it provides, what in the cities is considered an indispensable luxury—a bright and economical light.

The principle and its application through this machine is no longer a matter of experiment; its practical working results have been fully tested in its different forms for a period of eight years, and in every case it has performed to the entire satisfaction of all parties.

This works was patented February, 1853. At the Annual Exhibition of the Franklin Institute in 1852, they awarded to this works a Bronze Medal for its simplicity and convenience. At the following Exhibition in 1853, a Silver Medal was awarded for its adaptation and useful results. And in the year 1854, at the *Exhibition of the Pennsylvania State Agricultural Society*, after working in competition with other works, the committee awarded a Diploma to this apparatus.

To the above we shall add but a few of the certificates furnished us by gentlemen who have the machines in use in their private dwellings and manufactories. To these certificates we ask your attention. Persons desirous of seeing the works are requested to call at our store, where all desired information will be furnished.

Those at a distance, when writing, will be particular to give the full name of Town, County, and State. Gas-pipes and fixtures introduced into buildings in the best manner, at city prices. Also, on hand, a general assortment of Chandeliers, Pendants, and Brackets, from the manufactory of Messrs. Cornelius & Baker.

STRATTON & BROTHER,
No. 719 Walnut St., Phila., Pa.

REFERENCES.

T. U. Walter,	Architect,	Washington, D. C.
J. M. Gries,	"	Philadelphia.
Joseph D. Koecker,	"	"
Gervasse Wheeler,	"	New York.
S. D. Button,	"	Philadelphia.
John Notman,	"	"
Professor J. C. Rogers,		"

THE FOLLOWING PERSONS

Have this Apparatus in successful operation, to whom we refer, viz.:

First Presbyterian Church, Crookville, Delaware County, Pa., December 20th, 1851, Thirty-three Burners.

Rev. J. C. F. Hoes, Dutch Reformed Church, Kingston, Ulster County, N. Y., June 30th, 1852, Fifty-three Burners.

Spaulding & Rodgers, Floating Palace, Cincinnati, Ohio, June 1st, 1852, Seventy-two Burners.

Charles L. Pearson, Esq., State Street, Trenton, N. J., September 10th, 1852, Forty Burners.

J. S. Lovering, Esq., Oak Hill, near Germantown, Pa., June 1st, 1853, Fifty-six Burners.

Gen. J. W. Tyson, near Ellicott's Mill, Baltimore, Md., June 8th, 1853, Seventy-five Burners.

Goodin & Tooker, St. Louis, Mo., October, 1853.

David Longenecker, Esq., near Lancaster, Pa., December 25th, 1853.

C. Fallon, Esq., near Upper Darby, Pa., December 20th, 1853.

Dr. James Bond, South Broad Street, Philadelphia, Pa., January 30th, 1854.

Nicholas Nin-y-pons, Havana, Island of Cuba, February 1st, 1854.

Sharon Seminary, near Darby, Pa., May 30th, 1854.

Gen. George Cadwalader, Maxwell's Point, Md., August 30th, 1854.

Caleb Brinton, Wawassan, Chester County, Pa., March 10th, 1855.

Hanson Robinson, Brandywine Hundred, New Castle County, Delaware.

E. Lee, Mansion House, Atlantic City, New Jersey.

Point Breeze Park Association, Point Breeze, Philadelphia, Pa., Seventy-five Burners.

G. Dawson Coleman, North Lebanon Furnaces, Lebanon, Pa., One hundred and Fifty Burners.

Edward Yarnall, Wynndown, Montgomery County, Pa.

Paul J. Hoffman, 24th Ward, Philadelphia, Pa., Forty-seven Burners.

Haverford School, Haverford, Pa.

S. M. Felton, Chester, Penna.

T. H. Powers, Falls Schuylkill, Philadelphia.

Harry Ingersoll, N. P. R. R. and Green Lane, Philada.

M. Newbold, Mt. Holly, New Jersey.

Va. Military Institute, Lexington, Va., Two Hundred Burners.

Washington Manufacturing Co., Gloucester, N. J., One Thousand Burners.

John C. Beaty, Media, Delaware County, Pa., October, 1859, Twenty Burners.

E. C. Patee, Patee House, St. Josephs, Mo., October, 1859, Two Hundred and Thirty Burners.

Isaac D. Jones, Princess Anne, Md., October, 1859, Thirty Burners.

D. Morgan, Lower Merion, Montgomery Co., Pa.

W. H. Stewart, Torrisdale, Philada.

Montgomery and West Point R. R. Depot, Alabama.

A. A. Cohen, San Francisco, California,

TESTIMONIALS.

COPY OF LETTER FROM CHARLES L. PEARSON.

TRENTON, N. J., *February 15th*, 1855.

STRATTON & BROTHER.

GENTS:

"I have just made another trial with your Gas Apparatus, with the most satisfactory results, filling the gas-holder, which contains eight hundred cubic feet, entirely full. Everything operated most perfectly, and so entirely under control, from your excellent arrangements, with reference to accidents, that we now fear no danger whatever. I have ascertained, by accurate experiments, that the actual cost of the gas to us, is one dollar per thousand feet, the whole expense of fuel and resin."

I am yours, &c.,

C. L. PEARSON.

COPY OF LETTER FROM JOSEPH S. LOVERING.

OAK HILL, PHILAD'A., *February 17th*, 1855.

"I have had your Gas Apparatus in constant operation ever since you put them up, (excepting last winter, when I removed to town,) and I take pleasure in stating that they have proven entirely satisfactory. The capacity of my gasometer is about seven hundred and fifty feet, to produce which, it required one-third barrel of resin, one and a-half bushels of coal, and one man a day. Consequently, the gas, which is of the best quality, costs about two dollars and thirty-seven and a-half cents per one thousand feet, varying a little either way, according to the cost of coal and resin."

JOS. S. LOVERING.

COPY OF LETTER FROM REV. J. C. F. HOES, (PASTOR OF REFORMED DUTCH CHURCH.)

KINGSTON, N. Y., *March 1st*, 1855.

"We have used your Gas Works nearly three years, to light our Church and Lecture Room, using fifty-three burners, and find that the apparatus works, giving a uniform and pleasant light, at an expense (not including the interest on the first cost of the apparatus and fixtures, or the sexton's services,) not to exceed seventy-five cents per week; that is for one service in the Church and Lecture Room each."

J. C. F. HOES.

CERTIFICATE FROM DR. JAMES BOND.

South Broad Street, Philad'a., *March* 10*th*, 1859.

"I have had your Apparatus in use for about five years, and find it entirely satisfactory, both as to the quality of the gas and the safety of the preparation."

JAMES BOND, M. D.

CERTIFICATE FROM WILLIAM T. CROOK.

Crookville, Delaware Co., *March* 30*th*, 1855.

"I have had one of Stratton & Brother's Patent Gas Apparatus in operation at Crookville Church over four years. They give perfect satisfaction. The light is very brilliant, and does not cost more than other ways of lighting with lamps, &c. The works are very easily managed, and are not likely to get out of order."

WILLIAM T. CROOK.

VIRGINIA MILITARY INSTITUTE.

Lexington, Va., *April* 16*th*, 1858.

Stratton & Brother.

Gentlemen:

"In answer to your inquiries, the apparatus itself works well and gives perfect satisfaction. It requires about two barrels of resin to fill the gas-holder, containing three thousand cubic feet, and takes from eight to ten hours to do it.

"The retorts are as good as when first put in, they show no sign of being injured by near six month's steady use."

Yours, truly,

JNO. T. GIBBS.

Wynndown, Montgomery Co., Pa., 12*th Month* 1*st*, 1858.

Stratton & Brother:

"I have had your Gas Apparatus in use for two years past, to my entire satisfaction; the capacity of my gasometer is five hundred cubic feet, to fill which requires the services of one man, of from four to five hours, and consumes from one-quarter to one-third of a barrel of resin, and a bushel of coke."

"The light is fully equal in brilliancy to that produced at our city gas works."

EDWARD YARNALL.

TWENTY-FOURTH WARD, PHILAD'A, *February 12th*, 1859

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—

It is with pleasure I inform you that the "Patent Portable Gas Apparatus" you put up for me in November, 1856, has been in constant use since. The works are simple and so easily managed, that I have never been without a brilliant light for over two years, either from repairs or otherwise.

The gas made by this apparatus is more brilliant than that made from coal, requiring a less quantity to give the same light, and in comparison with burning fluid, (taking the cost of ingredients alone,) can be made for less than one-half, to say nothing of safety and cleanliness.

My gasometer contains four hundred and seventy-five cubic feet, and supplies one hotel and two private houses, or forty-seven burners in all, and requiring to be refilled from nine days to eight weeks, according to the length of the night.

Respectfully, yours,

P. J. HOFFMAN,

City Avenue, Twenty-fourth Ward.

PHILAD'A, *26th February*, 1859.

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—

In compliance with your request, I take pleasure in stating that the Gas Apparatus which you put up for me last Spring has fully answered my expectations.

The gas was readily made by our gardener, and we had an uninterrupted supply during the time that we remained out of town—nearly five months."

Yours, very respectfully,

THOMAS H. POWERS.

LEBANON FURNACES, *February 27th*, 1859.

Messrs. Stratton & Brother, of Philadelphia, Gas Works Builders and Gas Fitters, erected a Gas Works at the Iron Works of the undersigned, near Lebanon, Pa., which has rendered complete satisfaction. The Gas Works use resin in the manufacture of the gas, producing a clear and beautiful light, and at an expense considerably below the cost of oil lights, and that of gas made from coal, two feet of which are scarcely equal to one foot of the pure resin gas made by Stratton & Brother's Patented Apparatus.

The undersigned takes pleasure in recommending the adoption of their fixtures for making gas for iron works, country residences, and all manufacturing concerns beyond the reach of city and town gas works, and from his knowledge of the character of the Messrs. Stratton, for good workmanship

and reliability, feels confident that they will give entire satisfaction to any persons who may engage them.

G. DAWSON COLEMAN.

Per CHAS. B. FORNEY,

Manager of the Lebanon Furnaces.

Philadelphia, March 4th, 1859.

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—The Gas Works which you erected for me at my dwelling house in Chester, has proved highly satisfactory. The gas can be made, as it is in my case, by a servant boy, who has never failed to keep up a supply. It is of good quality, and gives a brilliant and steady light.

Yours, truly,

S. M. FELTON.

MESSRS. STRATTON & BROTHER.

The Gas Works put up here by you, something more than two years since, have given me entire satisfaction.

I kept an account the first year of the cost of lighting this house, sitting and eating rooms, chambers, kitchens and passages, amounting to fifteen dollars, ten barrels of No. 2 resin, at one dollar and fifty cents per barrel. And a man with any intelligence, can make the gas after once seeing it done.

The first expense here, after the work was completed, was at the end of twenty-two months, for a new Retort.

Very respectfully,

Your most obedient,

HARRY INGERSOLL.

Philadelphia, March 7th, 1859.

BRANDYWINE HUNDRED, NEWCASTLE CO., DEL., *March 8th,* 1859.

MESSRS. STRATTON & BROTHER.

GENTLEMAN:—At your request I have tested the quantity of resin, coke, and time consumed in filling my Gasometer, the capacity of which is eight hundred feet, and the result is nearly three and a-half bushels of coke, one hundred and twenty pounds of resin, and seven hours.

We commenced to make gas July 4th, 1855, since which time your Apparatus has given entire satisfaction, producing a gas much more brilliant and purer, than any manufactured by the City Companies from coal, and at a less cost.

I have burnt out but two Retorts. The yearly expense of repairs is very trifling.

Any man with ordinary capacity, being once shown the operation of making the Gas, can readily attend your Apparatus.

Very respectfully,
HANSON ROBINSON.

MANSION HOUSE, ATLANTIC CITY, *March 11th*, 1859.

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—At your request I take pleasure in recommending your Patent Gas Works. The Apparatus you put up at our house, has been in use since May, 1855, near four years, and in every respect has exceeded my most sanguine expectations.

The light is beautifully transparent and soft to the eye, and the cost of lighting the Mansion House and an adjoining hall, is much less than it was by any other material.

My men have found no trouble in the working of it, and make enough Gas in four hours to light the premises, &c., for two nights.

Yours, respectfully,
E. LEE.

PHILADELPHIA, *March 12th*, 1859.

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—

The Gas Apparatus erected by you for the Point Breeze Park Association, in December, 1855, has been in successful operation ever since; the gas generated in the apparatus is of great purity, and, in burning, produces a *brilliant white light*, free from all smoke or unpleasant smells, and at an expense considerably less than required when using coal gas.

We light the hotel, billiard saloon, and ten-pin alleys with seventy five burners.

The Apparatus is exceedingly simple, compact and efficient, there is no liability of derangement, and it can be worked without inconvenience by any individual of common capacity; it is also perfectly clean in its operations. As regards safety, I conceive its use in all respects as free from danger, as that of a common stove.

The expense of keeping your works in order, is but a trifling amount per year. The Apparatus, though it has been in use for four years, is now in good working order, showing no visible signs of giving out for years to come.

To gentlemen residing in the country, I consider your machine as an indispensable requisite, and particularly recommending itself to general use, by its simplicity and practical results.

SAMUEL KIRKPATRICK,
Treasurer, Point Breeze Park.

WAWASSAN, CHESTER CO., PA., *March 15th*, 1859.

MESSRS. STRATTON & BROTHER:

The Gas Works erected by you, in 1855, has continued to perform to my satisfaction. It has required no repairs, except retorts, and any person of ordinary ability can take charge of it.

Yours, truly,

C. BRINTON, JR.

PRINCESS ANNE, SOMERSET CO., MD., *May 3d*, 1860.

MESSRS. STRATTON & BROTHER.

GENTLEMEN:—

It affords me pleasure to express my entire satisfaction with the Gas Works you put up for me in November last. I selected your plan after full consideration of four or five other similar works, and after a trial of several months I can safely recommend your Gas Works and gas fitting of pipe, &c., as being excellent in workmanship and affording a cheap, safe and beautiful light.

Very respectfully yours, &c.,

ISAAC D. JONES.

PUBLIC BUILDINGS

FITTED UP BY

STRATTON & BROTHER,

PLUMBERS AND GAS FITTERS,

719 Walnut Street, Philadelphia.

Philadelphia Athenæum, Sixth and Adelphi streets.
Washington Manufacturing Company Mills, Gloucester, N. J.
White House, or President's Mansion, Washington, D. C.
Philadelphia, Baltimore and Wilmington Railroad Depot, Broad and Prime.
Girard College.
Pennsylvania Hospital for the Insane.
United States Naval Asylum.
United States Mint.
Pennsylvania Medical College.
Theological Seminary, Princeton, N. J.
Cornelius & Baker's Factory, Eighth and Cherry streets.
Horstman & Son's Factory, Fifth and Cherry streets.
Masonic Hall, Chestnut street.
St. Peter's Church, Third and Pine streets.
Jayne's Building, Chestnut street below Third.
Jayne's Dock street Building.
Jayne's Hall, Chestnut street above Sixth.
Musical Fund Hall, Locust street.
Pennsylvania Bank, Chestnut street above Fourth.
National Guard's Hall, Race street.
Philadelphia and Reading Railroad Office, Fourth and Willing's alley.
Orphan's Asylum.
Colored House of Refuge.
St. Mark's Church.
Lovering & Co.'s Sugar House, Church alley.
Goldsmith's Hall, Library street.
Adams & Co.'s Express Depot and Office.
Broad Street Market Houses, Broad and Race streets.
St. Clement's Church, Twentieth and Cherry.
Church of the Holy Trinity, Nineteenth and Walnut.
New Pennsylvania Hospital for the Insane, Twenty-fourth Ward.
Jayne's Commonwealth Building, Chestnut Street above Sixth.
Christ Church Hospital, Belmont, Pa.
Franklin Market, Tenth street above Chestnut.

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